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Résumé de l'article

La déforestation devint une préoccupation en Ontario au cours de la seconde moitié du dix-neuvième siècle, suite au défrichage résultant des besoins de l'agriculture et de l'industrie du bois d'oeuvre. Le gouvernement provincial institua un ministère des forêts chargé d'assurer la pérennité des ressources en bois et des revenus s'y rattachant, et ce dernier implanta plusieurs initiatives éducatives et de reboisement, tels Arbor Day et l'*Ontario Tree Planting Act* (1883). Ces mesures étaient justifiées par les effets attendus du déboisement sur le climat local et sur la productivité agricole, mais leur efficacité s'est vue limitée par la priorité accordée aux droits de propriété privée, par les doutes sur l'existence d'un lien entre déforestation, climat et productivité, et par un antagonisme de longue date envers la nature et les forêts. Ces enjeux sont examinés ici à l'échelle de la province ontarienne et par le biais d'une étude de cas du comté d'Essex.

Private Property Deforestation and Regeneration and the Clerk of Forestry in Nineteenth-Century Ontario

DIAMANDO DIAMANTAKOS

ABSTRACT:

By the latter part of the nineteenth century there was considerable concern in Ontario regarding the loss of forests, as a result of land clearing for agriculture and the harvesting of timber. In response, the provincial government established a department known as the Clerk of Forestry, charged with ensuring a perpetual supply of timber resources and revenues. This department instituted a variety of educational and reforestation initiatives, such as Arbor Day, and the *Ontario Tree Planting Act* (1883). These initiatives were justified in terms of the supposed effects of forest clearing on the local climate and agricultural productivity. However, their effectiveness was limited by the continuing priority attached to private property rights, doubts concerning the relation between forest loss, climate, and productivity, and a long-standing antagonism towards nature and forests. These issues are examined both in Ontario as a whole, and through a case study of Essex County.

RÉSUMÉ:

La déforestation devint une préoccupation en Ontario au cours de la seconde moitié du dix-neuvième siècle, suite au défrichage résultant des besoins de l'agriculture et de l'industrie du bois d'œuvre. Le gouvernement provincial institua un ministère des forêts chargé d'assurer la pérennité des ressources en bois et des revenus s'y rattachant, et ce dernier implanta plusieurs initiatives éducatives et de reboisement, tels Arbor Day et l'*Ontario Tree Planting Act* (1883). Ces mesures étaient justifiées par les effets attendus du déboisement sur le climat local et sur la productivité agricole, mais leur efficacité s'est vue limitée par la priorité accordée aux droits de propriété privée, par les doutes sur l'existence d'un lien entre déforestation, climat et productivité, et par un antagonisme de longue date envers la nature et les forêts. Ces enjeux sont examinés ici à l'échelle de la province ontarienne et par le biais d'une étude de cas du comté d'Essex.

The colonial era in Ontario marked the beginning of centuries of massive unrestricted environmental degradation, dominated by clearing for the purpose of settlement and intensive agriculture. However, once the environment had been significantly altered and agriculture and timber related revenues had begun to decline, agriculturalists and political bureaucrats attempted to address the difficulties encountered. No longer was it reasonable to profess the bountiful nature of the province's natural resources. In fact, by the

latter part of the nineteenth century human beings had begun to recognize the finite and exhaustible nature of such commodities.

At this time the provincial government established the department known as the Clerk of Forestry. This institution was created to address the multiplicity of public and private, farm and forest related issues. The department's underlying intent was to ensure a perpetual supply of timber resources and revenues vital to the general economic development of the province.¹ The result was the implementation of a variety of **informal** educational and **optional** reforestation initiatives. The success of such policies however would be limited, because of the overall importance attributed to individual and private property rights, as well as farmers' long standing antagonism towards nature and forests.

In order to secure public support for departmental reforestation initiatives the argument was advanced that decades of timber over-exploitation were responsible for changes in climate and agricultural productivity. This argument corresponded with growing public concern with respect to declining agricultural yields, in which explanations for such changes were sought in the enigmatic and little understood "occult of climatology and meteorology."² This paper will explore these issues, the policies and programs enacted, and the overall effectiveness of such initiatives within both a provincial and local context. A case study of Essex County will be used to fulfil the last of these objectives.

The hardwood forest region located on the northern shores of Lake Erie and western Lake Ontario will be the focus of this investigation. Also referred to as the Carolinian Zone, this region extends as far south as the Carolinas, and includes a variety of soil, climate conditions and tree species,³ including: sugar maple, beech, white elm, basswood, red ash, white oak, butternut, tulip-tree, and hickory. Within Canada, these species are found only in this region.⁴ Remnants of this once vast deciduous forest survive only in small scattered woodlots found throughout southern Ontario. The deforestation of this region occurred primarily as the precursor to agricultural development during the early nineteenth century, and is symbolic of humanity's historic perception of nature as property, and early inhabitants' preoccupation with the exploitation of land.

In the eighteenth century Ontario was perceived as an infinite wilderness, in which travellers could be overwhelmed by the vastness of the forest. Anna Jameson, in her treks through southwestern Ontario described the region as a "boundless wilderness ...

where the foot of man hath never penetrated."⁵ The wilderness, according to Anna, was "savage," and "solemnly wild." She went on to write that, "so thick was the overhanging foliage that it not only shut out the sunshine, but almost the daylight; and we travelled on through the perpetual gloom of vaulted boughs and intermingled shade."⁶

However, a major theme in the colonization of Ontario became the confrontation between early inhabitants and the forest.⁷ Suzanne Zeller, addresses this prevailing nineteenth century attitude towards nature, arguing that,

it was difficult for immigrants in the backwoods during the early nineteenth century to see Canada as anything but a harsh, unyielding wilderness. Many were dismayed by the apparent bareness of the indomitable rock formations, by the extremities of heat and cold, and by the unrelenting tangle of primordial forest. Success, it seemed, would be mere survival in such formidable circumstances. But could one ever really feel at home in such rudimentary surroundings?⁸

Any naive, romantic preconceptions of the Ontario backwoods were quickly replaced as new settlers were forced to confront and adapt to their new environment. "Settlers stripped the trees from their land as quickly as possible.... They attacked the forest with a savagery greater than that justified by the need to clear the land for cultivation, for the forest smothered, threatened, and oppressed them."⁹

While some individuals find spirituality and solace in nature, others are overcome by her "wild, destructive, disorderly, chaotic, smothering and death dealing"¹⁰ forms. During the nineteenth century many individuals subscribed to the second of these perceptions. In fact, perceptions like Anne Jameson's were comparatively unpopular, in that many rural folk associated nature with loneliness and what has been described as the "horror" of the Canadian backwoods. Northrop Frye has argued that the "deep terror" exhibited by many new settlers in regard to nature arose from a "sense of solitude," and isolation, characteristic of life in this "menacing environment."¹¹ He goes on to suggest that this "huge, unthinkable, menacing, and formidable physical setting" had a decisive impact in the development of social/intellectual traditions in Canada.¹² As will soon become apparent, the pioneer settlers of Upper Canada set out to clear vast tracts of forest not only to overcome the "sense of solitude" and "terror" described by Northrop Frye,

but to establish viable agricultural homesteads, and attain the social and economic mobility and success associated with private property land acquisition. It has been argued in fact that the idea of "progress" became so paramount during this time that it replaced "religion as the new opiate of the masses."¹³

During the nineteenth century there emerged an **evangelical doctrine of progress**. This doctrine maintained that by civilizing and conquering the wilderness, economic prosperity and moral improvement could be attained. Metaphorically, nature was viewed as a "heathen and moral desert."¹⁴ It was feared that human beings surrounded by such vastness would succumb to the evil embodied in nature, and abandon in the process the moral teachings of the Lord.¹⁵ By subjecting nature to humanity's control a greater degree of physical and spiritual order, discipline and economic progress could be procured.¹⁶ The evangelical doctrine of progress first advanced by Protestant missionaries¹⁷ would have a decisive impact on early pioneer settlers' perceptions and/or relationship with nature.

But while the nineteenth century was marked by less than favourable attitudes towards nature the last decade of the century witnessed the growth of a greater appreciation of the rugged beauty and boldness of the Canadian backwoods. Such perceptions were the product of a discontent urban elite seeking to escape the constraints and routines of everyday city living. By the turn of the century the northern wilderness had become a popular vacation and recreational space.¹⁸ City beautification schemes were also implemented, characterized by the planting of trees, flowers and shrubs and the creation of small parks. Such changes were reminiscent of more tranquil places in nature, and were created with the notion of escapism in mind.¹⁹

Artists were similarly drawn to the majestic nature of northern Ontario's landscape. The late nineteenth century in fact witnessed the emergence of a truly distinctive Canadian artistic ideal, one concerned with capturing the solitary landscapes, geological rock formations, and brilliant colours of the Canadian wilderness.²⁰ Although landscape art has most often been equated with the work of the Group of Seven, such an approach emerged during the late eighteen eighties and reflected the artistic inspiration of the members of the Toronto Art League (1886–1904).²¹ Interestingly, however, this "back to nature" phenomena was exclusively confined to urban circles. In fact, most rural folk continued to see nature as threatening. There was no interest in the beauty of nature, as

deforestation was seen as the sole means of overcoming the "sense of solitude" described by Northrop Frye. Forest clearing was also seen as the means by which viable agricultural homesteads could be fashioned and social and economic mobility and success realized.

By the last two decades of the nineteenth century, deforestation in southern Ontario had reached unprecedented levels. Scientists during this time proclaimed that, "in many cases in this Province the danger line has been passed and the proportion of timbered land to total area reduced much below twenty percent"²² thus threatening the climatic stability and agricultural productivity of a region. During the 1896 fiscal year, one study focused entirely on the degree of deforestation sustained in the more settled southern localities of the province. This report compiled by the Bureau of Industries with the assistance of township municipalities, revealed that thirty out of the forty counties located in southern Ontario's agricultural district possessed less than the recommended twenty to twenty-five percent forested property.²³ Out of the thirty counties, sixteen has less than 20% but more than 10% of their property in woodland. The proportion of woodland to total area in the counties of Dufferin, Wentworth, and Huron was 10%, Peel and York possessed 7%, and the county of Victoria a mere 5 percent. The authors of this investigation concluded that,

throughout the greater extent of the really good and fertile agricultural regions of Southern Ontario, where the land has been longest settled and the greatest inducements offered by natural advantages to its permanent occupation, the percentage of forest has been reduced far below that which should have been retained to ensure the perpetuation of these favourable conditions.²⁴

Five years after the publication of this report, a follow-up report concluded that over-exploitation of the region's timber resources had continued at an alarming rate.

Essex County, in the southwestern periphery of the province was no exception to the extensive deforestation taking place during the latter part of the century. Table #1 illustrates the progressive nature of the forest exploitation occurring in the region between the years of 1870 and 1900.²⁵ This table on the next page illustrates that older earlier settled localities such as Sandwich East and West, Anderdon, and Malden, experienced minute levels of deforestation between 1880 and 1900, because there was little if any timber left to be exploited. In comparison, the townships of Colchester South, Gosfield, Rochester and Tilbury located in the more remote corners

TABLE 1			
Townships	Percent Timbered 1881	Percent Timbered 1900	Percentage Difference
Anderdon	20.0%	3.1%	16.9%
Colchester N	<50.0%	67.1%	?
Colchester S	50.0%	28.0%	22.0%
Gosfield	64.0%	20.3%	43.7%
Maidstone	50.0%	6.6%	43.4%
Malden	25.0%	10.4%	14.6%
Mersea	45.5%	28.0%	17.5%
Rochester	63.0%	25.0%	38.0%
Sandwich E	27.6%	22.0%	5.6%
Sandwich W	20.0%	14.3%	5.7%
Tilbury	60.5%	28.6%	31.9%
Mean Average	40.50%	23.04%	23.93%

of the county, and settled later in the century experienced more notable levels of deforestation, in that they offered a fresh source of timber at a time when older districts' resources were all but depleted.

It is not surprising that the townships first settled had higher rates of deforestation, or even that they possessed fewer stands of commercial grade timber. Although this table reveals no startling discoveries, it is worth noting that similar outcomes were also evident in the surrounding districts of Kent and Elgin. Statistical information concerning the total acreage, land cleared, woodland and wasteland, for these localities and other counties in the southern agricultural district, can be found in the 1881 *Ontario Agricultural Commission Report* appendix B, and the 1900–1901 *Annual*

Report of the Director of Forestry. A brief glance at the statistics for several of these localities indicates the possibility of similar outcomes, suggesting a more far reaching universality of Essex County's findings.

THE CLERK OF FORESTRY

The Clerk of Forestry was created in 1883, in response to a resolution passed the previous year by the American Forestry Congress in Montreal.²⁶ The work of the department was overseen on different occasions by both the Department of Agriculture and the Department of Crown Lands. Its general mandate focused on informing the general public about matters of forestry. Specific departmental mandates however, shifted in response to larger departmental and government interests.²⁷ While under the guidance of the Department of Agriculture, for example, forestry was equated with the "traditional idea of woodlot management and the reforestation of abandoned farm lands."²⁸ R.W. Phipps, the first Clerk of Forestry was the first of a "long line of civil servants who laboured under the government's conception that forestry was part and parcel of farm management."²⁹ The government during this time recognized the general economic benefits to be derived from the maintenance of a portion of one's property in timber.³⁰ It is unclear however when the notion that trees should be considered something other than an additional cash crop emerged. Presumably, a shift in attitude of this nature would have occurred sometime in the twentieth century with the emergence of a greater appreciation of nature from environmental and aesthetic points of view.

The department's central objective was to disseminate information to the public concerning forestry. R.W. Phipps, the first Clerk of Forestry, was a respected journalist, long time pamphlet writer for both the Conservatives and Liberals and a small scale agriculturalist with a particular interest in issues pertaining to farm and forestry.³¹ As the province's first "forestry publicist" Phipps was expected to address matters of an educational and propagandistic nature, as opposed to initiating public policy.³² With the death of Phipps in 1894,³³ however, the department's traditional educational focus was replaced with a more practical problem-solving approach. Although the department's powers and responsibilities expanded the years following Phipps death, Thomas Southworth, the department's new Clerk, continued to promote intelligent farm and forest management initiatives.

During the mid 1880s, as timber resources were quickly being depleted, political bureaucrats began to recognize the finite nature of the province's timber resources and as such set out to establish policies of conservation and regeneration. The Clerk of Forestry enacted a series of informal educational and optional reforestation initiatives, geared at addressing public misconceptions, while simultaneously encouraging private property reforestation. In devising such policies, the department scrutinized a variety of private property reforestation initiatives enacted by other nations, especially Germany and France.³⁴ Ultimately, however, few elements of other nations' initiatives were adopted, because they were seen as a form of "arbitrary government interference," contrary to Canadian ideas of liberty and freedom.³⁵ Instead, the department implemented its own specific policies.

The first endeavour of the Clerk of Forestry was to attempt to abolish long standing myths and misconceptions associated with nature and forests. An important element of this educational program consisted of eradicating "the idea that a tree is an enemy to be destroyed whenever found."³⁶ Through public forums, lectures, addresses and official documents, the department attempted to instill within the public a genuine appreciation of nature and love of trees, as a means of lessening the degree of "wanton and malicious injury"³⁷ inflicted upon nature. One example of this was the creation of *Arbor Day. Inaugurated in 1885 by the department, Arbor Day was seen as a means to "influence public opinion,"*³⁸ and counteract antiquated ideas associated with trees. Targeted specifically at school children, Arbor Day gave youngsters the opportunity to participate in tree planting activities and learn of the benefits associated with forest regeneration.³⁹

The second initiative advanced by the department focused specifically on reforesting the southern agricultural district of the province. In 1883 the Provincial government passed the *Ontario Tree Planting Act*.⁴⁰ This act rewarded citizens for every tree planted along public highways and or private property boundaries.⁴¹ Those willing to participate had the option of selecting from the following species: ash, basswood, beech, birch, butternut, cedar, cherry, chestnut, elm, hickory, maple, oak, sassafras, walnut and white-wood. Although this list is exclusively comprised of indigenous hardwood tree species, pine and spruce were also sanctioned. In exchange for planting and caring for these trees, a small monetary reward, not exceeding twenty-five cents per tree, was issued. This reward paid in part, by both the provincial and municipal govern-

ments, was contingent upon proper care of the saplings for a minimal of three years. Upon the fulfilment of this provision, a local inspector would certify those entitled to such rewards.⁴² It is important to keep in mind, however, that this policy was from the outset optional and informal as the government of Ontario recognized the need to uphold private property rights and liberties. As will soon become apparent the optional and informal nature of such initiatives inhibited the overall success of the department's initiatives.

Departmental success depended on convincing agriculturalists of the direct benefits to be derived from their participation in private property reforestation. The department, accordingly, zeroed in on the growing agricultural concern, linked with fluctuations in the quality and quantity of agricultural goods being produced. According to the editor of the popular nineteenth century agricultural journal *Canada Farmer*, some agriculturalists attributed such difficulties to an "occult cause only to be sought in the realms of meteorology and climatology."⁴³ Unwilling to recognize the detrimental impact of their own actions such individuals instead blamed the enigmatic, complex and little understood nature of climate. In doing so, agriculturalists were relieved of all responsibility for their actions, in that the crisis in question was seen as the product of an uncontrollable force. The department took this perception one step further, arguing that trees regulated climatic patterns and cycles, thereby maintaining ecological stability and agricultural productivity.

During this time the Clerk of Forestry began to address the difficulties encountered by agriculturalists. The department underscored the unquestionable interrelationship among deforestation, climatic change and declining rates of agricultural productivity. In fact, Phipps maintained after having examined the testimony of approximately 200 farmers, that,

years ago, when there was still much timber standing, most crops gave far better return than since has been cleared. There is no denying that this is largely the case. The fall wheat, for instance, grew very much better, and with this of course the clover flourished. When we consider how valuable these two crops are in proper farming rotation, what we have easily lost by the change in climate can easily be calculated.⁴⁴

It was argued that in previous decades the climate was "better calculated to aid fertility" and that deforestation had largely been

responsible for altering climatic patterns and cycles. Excessive rain and thunder showers were believed to result in the water logging of grains, destruction of small plants, and the stripping of the earth of its richest topsoil. Clearing of the woods was also said to cause the drying up of river beds and streams, which in turn would effect the overall ecological equilibrium of the region. Agriculturalists similarly argued that decades of deforestation had resulted in a multiplicity of problems including extensive droughts, storms, much cooler summers and winters, greater differences in temperatures between day and night and stronger winds.⁴⁵

This perceived crisis in agriculture was more complicated than what is represented in the forestry reports of the time. David Gagan, Douglas McCalla and Robert Leslie Jones have addressed the economic and commercial crises of the mid nineteenth century, underscoring the transitional nature of Upper Canadian society during this time. In his work *Hopeful Travellers*, Gagan argues that,

the contraction of the imperial market at the end of the Crimean War was followed in succession, by a severe commercial depression (1857–60), a rapid decline in wheat prices (47% in four years), a series of severe crop failures, and finally at the end of the American Civil War, the disruption of the American market for Canadian livestock, dairy products, cereal, and forage crops. In the end much of the ground gained in the 1850s was lost. Between 1860 and 1870 surplus farm production in central Canada declined by 100%.⁴⁶

Gagan also argues that the crisis in question was linked not only to population pressures, but also to the growing scarcity of agricultural lands available for one's progeny.⁴⁷ He goes on to suggest that the "crisis" had more to do with falling prices than fluctuating agricultural yields.

McCalla in his work *Planting the Province* agrees in part with Gagan's suppositions. Like Gagan, he focuses on fluctuating agricultural prices and yields, as one aspect of the crisis in question,⁴⁸ but he also maintains that the "major commercial crisis in 1857–8 and [the] second cyclical downturn in 1866–7"⁴⁹ had far more consequences than merely at the agricultural level. Population pressures and external forces also had a significant impact on the provincial economy. Although McCalla agrees with Gagan's premise that "the rural economy was affected by at least three political developments: the Reciprocity Treaty with the United States [1855–1866] ... the Crimean War, [1854–1856] ... and the American Civil

War, [1861–1865]” he argues that the impact of such events were far more subtle than Gagan has suggested.⁵⁰ McCalla asserts that these “crises” had begun prior to the unfolding of these political events. Such events simply exasperated the economic fluctuations already taking place because of the changing social, economic and political milieu of the time.

Robert Leslie Jones in his work *History of Agriculture in Ontario* examines a variety of issues relating to the emergence of a crisis in agriculture, including the impact of industrialization, the changing nature of rural life, and farm productivity. He concludes that the crisis in question was the result of a multiplicity of factors including continual wheat cropping, the inadequate use of fertilizers and the lack of proper crop rotation.⁵¹

Implicitly, such works illustrate that the Department of Forestry in addressing the perceived crisis in agriculture chose to address certain specific issues and disregard others in order to secure public support. However, as we will see, the department was largely unsuccessful in the realization of its endeavour, given the importance subscribed to private property and individual rights and the public’s antagonistic feelings towards nature and forests.

In 1896 the Bureau of Forestry questioned schools regarding their Arbor Day observances, in order to gauge the relative success of the program. The results were as varied as the number of schools participating in the investigation. Data were collected from 305 townships and 122 municipalities. They revealed that Arbor Day was “generally” observed in 211 localities, and only “partially or sometimes” in 129 other localities. In 86 of the more remote timbered localities the occasion was altogether ignored.⁵² In an address concerning the success of the program the author of the investigation maintained that,

the results were thoroughly satisfactory in 132 instances, and fairly in fifty-two more. In seventy-eight municipalities the planting has been decidedly unsuccessful, while in eighty-six cases the answers to the questions are so vague and indefinite as to afford little or no identification as to the actual facts of the situation.⁵³

These meagre results were attributed to poor planting and follow-up maintenance procedures. More specifically, teachers were held responsible for the low success rate. They were believed to be ignorant of the preparatory and maintenance work required for the establishment and growth of the saplings. Southworth argued that

many educators were unaware of the importance of healthy moist roots, and the importance of watering and periodic care. Accordingly, it was suggested that all teachers receive "brief and elementary instructions" with respect to tree planting and care, so "that the mistakes so frequently made at the outset may for the future be avoided."⁵⁴ Whether such a policy was adopted is altogether unclear, in that no follow-up report is evident.

During the middle to late nineteenth century, schools were employed to impart scientific information to the youth of the province. One such example was the work conducted by Reverend Egerton Ryerson in the 1850s promoting the study of climatology and meteorology in public schools.⁵⁵ A second such example was the Arbor Day program. The overall success of the Arbor Day program is questionable, however, as the program was not always carried out to its finality. Planting saplings and then allowing them to perish through lack of proper care, contradicts the original intent of the initiative, of developing among students a genuine appreciation of nature and love of trees. By imparting an interest in trees the department hoped to lessen the degree of "wanton and malicious injury" inflicted upon nature.⁵⁶ Little information is available regarding the success of this program. What is of particular importance, however, was the manner in which schools and science were employed to eradicate long standing myths associated with nature and forests, in the hopes of moulding a new generation of more environmentally conscious adults.⁵⁷

During the 1895 fiscal year Thomas Southworth assembled a report on the overall effectiveness and workings of the *Ontario Tree Planting Act*. The investigation spanned the years of 1886 through 1894, with the exclusion of the first three waiting years of the program, requisite prior to the payment of the bonus. Within the first nine years of the program only \$4,808 were dispensed of its \$50,000 budget.⁵⁸ There was also a notable decrease in the funds expended in the three years prior to the undertaking of this investigation. In 1892, for example, \$773.70 in bonuses were paid in total. In 1893 this figure declined to \$486.11, and then plummeted in 1894 to \$282.60.⁵⁹ During this time, 42 townships and six villages participating in the program were responsible in the planting of approximately 75,000 trees.⁶⁰ Such results, however, were meagre in comparison to Kansas city's annual million and a half tree planting total.⁶¹

Many reasons were given for the limited success of the *Ontario Tree Planting Act*. Among the reasons cited were the three year wait

for reimbursement; the objections raised by those not participating in the program, such as the misappropriation of public funds for private benefit; and more generally, the loss of control over timber planted on private property with the acceptance of the government issued monetary reward. One of the more paramount problems inhibiting the success of the program was the lack of cooperation on the part of many municipalities in establishing by-laws authorizing the program, and the payment of the municipal bonus.⁶² The conclusion was ultimately reached that the *Ontario Tree Planting Act* fell short of its expectations, and thus needed to be either amended or repealed.⁶³ In 1896 the department amended the act, abolishing in the process the provincial bonus, which in the past had largely gone uncollected. Townships, however, were permitted to continue paying farmers the demarcated amount for every tree planted.⁶⁴

ESSEX COUNTY

Local papers and county council minutes for the years of 1883 through 1887 indicate that Essex County did not pass a by-law authorizing the *Ontario Tree Planting Act* and the legalization of the provincial bonus. The *Records of the Municipal Council of the "Western District" "United Counties of Essex, Kent and Lambton"* reveal that the issue was not even raised for discussion during legislative sittings. Although numerous issues were repeatedly discussed including education, the Ruscom River and its watercourse, railway finances, bridge and road building, construction, crime and prisons and penitentiaries⁶⁵ there was however, no mention of the *Ontario Tree Planting Act* or the need for conservation and regeneration programs. This in itself is a curious fact. One wonders why at a time when timber resources were quickly being depleted in the region that no action was taken by the county. One can only assume that the issue was not of particular interest, or importance to the county. It is possible that the county was unconvinced of the need to implement such measures because of the extensive timber resources in several of the more remote settled localities. The more than adequate monetary revenues being generated from timber exploitation in these townships could have easily affected whether the issue was addressed.

It is quite possible that some individuals did not accept the department's initial line of reasoning regarding the impact of deforestation in altering climatic patterns and cycles. Historically,

deforestation had been equated with climatic progress or amelioration, to shift away from this idea would undoubtedly have been difficult considering the longevity of this perception.

Essex County agriculturalists may also have rejected the implementation of the *Ontario Tree Planting Act* because of their strong opposition to government intervention in private property. A similar circumstance emerged with the passing of the 1879 *Tile Drainage Act*. Wary of government intervention, red tape and the long waiting period prior to being issued capital, many farmers preferred to personally finance the cost of underdraining.⁶⁶ Agriculturalists may have shared similar sentiments with respect to the *Ontario Tree Planting Act*. As has been previously discussed, the nineteenth century was an era in which private property and individual rights were of paramount concern, allowing the government to intervene regardless of the economic benefit would have undoubtedly been seen as an infringement upon those rights.

The case study of Essex County is important because it suggests that not all localities were convinced of the dual crisis in agriculture and timber exploitation, discussed so extensively in the forestry literature of the day. If a general consensus on the matter had existed, then a more universal adoption of the policy would have occurred, both in Essex County and in the province as a whole. From this one can deduce that during this time there were a variety of options concerning the state of agriculture and timber exploitation, and the interrelationship of the aforementioned factors. In Essex County, where the percentage of timbered property varied extensively from township to township it is not difficult to perceive the existence of a multiplicity of opinions. Similar circumstances undoubtedly prevailed elsewhere in the province. Essex County is thus an example of the lack of universal acceptance of arguments pertaining to deforestation and its consequences.

Perhaps if the department had demonstrated a strong correlation between loss of tree cover and declining agricultural yields, then its initiatives may have been better received. Unfortunately, such investigations were not conducted even though resources were available. Meteorological and climatological data, for example, had been collected for decades throughout the province and could have been of some assistance in such an investigation.⁶⁷ Although finances were limited during this time, especially for a project of this magnitude, one wonders if the government was dissuaded from conducting such an investigation, given the possibility of obtaining results contrary to those desired.

Perhaps the foremost reason for the limited success of the department's initiatives was the general public's attitudes toward nature and private property rights. Many individuals refused to participate in the department's reforestation program because they believed that by accepting the monetary reward for each tree planted the government was indirectly given some degree of authority to participate in decisions concerning the saplings. This was seen by many as a potential violation of one's individual rights.

Agriculturalists also continued to possess confrontational attitudes towards the provinces backwoods.⁶⁸ Described as both oppressive and solemnly wild, Upper Canadians' possessed a deep hostility towards the forest.⁶⁹ Trees were seen as a farmer's central obstacle in the attainment of both agricultural and economic success.⁷⁰ Not only was the province's vast primeval forest seen as the cause of the regions harsh, unyielding climate,⁷¹ but it also sheltered "mischievous beasts of prey" capable of destroying crops and livestock.⁷² Accordingly, agriculturalists hoped to alleviate all that was smothering, threatening and oppressive of this environment.⁷³ Given the deep hostility expressed by many pioneer settlers, it is difficult to imagine such individuals participating in forest regeneration and woodlot maintenance. Since these individuals also identified themselves as agriculturalists, timber regeneration would have seemed contrary to their central economic objective.

Another facet of the Department of Forestry's work that met with scepticism was the argument that deforestation played a critical role in altering climatic patterns and cycles and agricultural productivity. According to Thomas Southworth, this argument was rejected by a significant number of individuals, who believed that the province's northern forests would help to counterbalance the negative affects of depleting timber resources in their particular localities.⁷⁴ One wonders why agriculturalists did not recognize the faulty nature of this supposition. If their reasoning was valid, then the northern forests would have neutralized the effect of depleting timber resources in the southern periphery of the province, and thus diverted in the process the crisis in agriculture that they were presumably experiencing.⁷⁵ Thus, private property reforestation initiatives was also inhibited by agriculturalists' continual adherence to such erroneous lines of reasoning.

The perception of tree planting as costly and nonprofitable also deterred many property owners from participating in timber regeneration. Many agriculturalists argued that the detracting features

were the relatively lengthy maturation time of timber, and the lack of immediate monetary returns.⁷⁶ In particular, many middle-aged agriculturalists refused to partake in regeneration initiatives, as they firmly believed that they would not live long enough to reap the benefits of their investment.⁷⁷ The government was quick to respond to such concerns by suggesting that:

it is rarely that a man who builds houses to rent gets back his money with interest during his lifetime.... In all investments where the return is reasonably certain the yield is so small that the capitalist cannot expect to draw, during his life, in profit or interest the amount embarked. In most cases he has no such expectation. He is satisfied to know that his capital is safe and increasing, so that he may leave a provision for his family.⁷⁸

Although the idea of short term sacrifice for long term benefit and success of the family is a powerful argument, one must wonder how influential such an argument would have been given agriculturalists long standing hostility towards forests. Bureaucrats nevertheless hoped that farmers would one day recognize both the environmental and monetary long term benefits associated with reforestation and cooperative responsible living with one's environment.⁷⁹ This, however, would have required agriculturalists to abandon the most pervasive attitude of the nineteenth century- the idea that, "a tree is an enemy to be destroyed whenever found."⁸⁰ Such change would be a long time coming.

The last and perhaps most detrimental factor limiting the success of the department's initiatives was the inability of human beings to distinguish between "yield" and "loot" and/or "ecological abundance" and "economic prodigality."⁸¹ Given the sanctity of private property rights during this time, individuals were able to unmercifully exploit the earth of its richest natural resources without the fear of government intervention or reprisal. Private property was viewed essentially as a commodity to be exploited. The prevalence of such ideologies during this time prevented many individuals from recognizing the benefits to be derived from cooperative and responsible living with one's environment. These perceptions and attitudes towards nature and property ultimately influenced behaviour, and led many to reject outright departmental initiatives.

During the latter part of the nineteenth century, the Clerk of Forestry, through a variety of informal educational and optional reforestation initiatives, attempted to come to terms with the exten-

sive deforestation taking place throughout southern Ontario. Although these policies were largely unsuccessful, the overall importance of such initiatives should not be ignored. The very implementation of such policies illustrates a greater understanding of the finite and exhaustible nature of the earth's natural resources and the interest of the government in developing a strong provincial infrastructure.

NOTES

- 1 Numerous references are made in government publications with respect to the importance of timber in perpetuating the general economic well being of the province. For specific references see, "Forestry Report, 1888," *Sessional Papers*, 5 (1889), 52 and 71. "Forestry Report, 1889-90," *Sessional Papers*, (1892), 15 and 63. "Forestry Report, 1896," *Sessional Papers*, (1896), 40 (1896), 8, 9, 10, 25 and 27.
- 2 "The Breeder and Grazier," *Canada Farmer*, (January 15, 1864), 4. Robert Leslie Jones, *History of Agriculture in Ontario, 1613-1880* (Toronto: University of Toronto Press, 1946), 246.
- 3 Richard S. Lambert, *Renewing Nature's Wealth* (Canada: Hunter Rose Company, 1967), 4. *Conserving Carolinian Canada*, ed. Gary M. Allen, Paul F.J. Eagles, Steven D. Price (Waterloo: University of Waterloo Press, 1990), vii.
- 4 J.S. Rowe, *Forest Regions of Canada* (Ottawa: Supply and Services Canada, 1977), 10. Gary M. Allen et al., vii.
- 5 Richard S. Lambert, 1.
- 6 *Ibid.*, 2.
- 7 *Ibid.*, Lambert, 64.
- 8 Suzanne Zeller, *Inventing Canada: Early Victorian Science and the Idea of the Transcontinental Nation* (Toronto: University of Toronto Press, 1987), 3.
- 9 Kenneth Kelly, "The Changing Attitude of Farmers to Forest in Nineteenth Century Ontario," *Ontario Geographer* 8 (1974), 64.
- 10 Rupert Sheldrake, *The Rebirth of Nature: The Greening of Science and God* (New York: Bantam Books, 1992), 9.
- 11 Joseph Adamson, *Northrop Frye: A Visionary Life* (Oakville, Ontario: ECW Press, 1993), 67.
- 12 Ian Balfour, *Northrop Frye* (Boston: Twayne Publishers, 1988), 87.
- 13 William Westfall, *Two Worlds: The Protestant Culture of Nineteenth Century Ontario* (Kingston and Montreal: McGill-Queen's University Press, 1989), 111.
- 14 Doug Owram, *The Promise of Eden: The Canadian Expansionist Movement and the Idea of the West, 1856-1900* (Toronto: University of Toronto Press, 1980, 1992), 24.
- 15 *Ibid.*, 24.
- 16 *Ibid.*, 219.
- 17 *Ibid.*, 23-4.

- 18 Allan Smith, "Farms, Forests, and Cities: The Image of the Land and the Rise of the Metropolis in Ontario, 1860-1914," *Constructing Modern Canada: Readings in Post Confederation History*, ed. Chad Gaffield (Toronto: Longman Press, 1994), 13.
- 19 *Ibid.*, 15.
- 20 J. Russell Harper, *Painting in Canada: A History* (Toronto: University of Toronto Press, 1966), 265.
- 21 Thoreau MacDonald, *The Group of Seven* (Toronto, The Ryerson Press, 1945, 1952, 1962), 1.
- 22 For more information on this issue see, "Annual Report of the Director of Forestry, 1900-01," *Sessional Papers*, (1902), 22.
- 23 The southern agricultural district in question extends as far west as Essex, as east as Ottawa, and as north as the most northern perimeter of Lake Simcoe, and excluded counties of a newer settled nature.
- 24 "Forestry Report, 1896," *Sessional Papers*, 40 (1897), 13.
- 25 The figures in table 1 were obtained from the following sources, the *Ontario Agricultural Commission: Appendix B*, "County of Essex" section and the *Annual Report of the Director of Forestry* for the years of 1900-1901.
- 26 Richard S. Lambert, 164.
- 27 *Ibid.*, 164.
- 28 R. Peter Gillis and Thomas R. Roach, *Lost Initiatives: Canada's Forest Industries, Forest Policy and Forest Conservation* (New York: Greenwood Press, 1986), 43.
- 29 *Ibid.*, 43.
- 30 "Forestry Report, 1886," *Sessional Papers*, 5 (1888), 52.
- 31 Richard S. Lambert, 184.
- 32 R. Peter Gillis et al., 43.
- 33 Richard S. Lambert, 184.
- 34 For further information on this issue, see the 1884 Forestry Report found in the 1885 *Sessional Papers*.
- 35 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 41.
- 36 *Ibid.*, 25.
- 37 *Ibid.*, 52.
- 38 *Ibid.*, 17.
- 39 *Ibid.*, 51.
- 40 In 1871 an act entitled "An act to encourage the planting of trees upon the highways in this Province..." was enacted. Little information is known about this particular piece of legislation, other than it enabled municipal councils to plant ornamental and or shade trees and disburse money to appropriate institutions to carry out similar functions. This legislative act was ultimately replaced by the *Ontario Tree Planting Act* of 1883. Because of the limited availability of information on the former act, the latter of the two will be explored in greater detail. For further information concerning this issue consult, Kenneth Kelly's article, "Damaged and Efficient Landscapes in Rural and Southern Ontario 1800-1900," *Ontario History* 1:LXVI (1974), 8-9.

- 41 *Ibid.*, 42. G. Elmore Reaman, *The History of Agriculture in Ontario* (Toronto: Saunders of Toronto Ltd., 1970), I, 143. Although the Act makes no mention of the intent to create woodlots, I suspect that such an initiative would have been openly embraced, in that the department's overall aim was to encourage private property regeneration.
- 42 "Forestry Report, 1889-90," *Sessional Papers*, (1892), 11.
- 43 "The Breeder and Grazier," *Canada Farmer*, (January 15, 1864), 4. Robert Leslie Jones, 246.
- 44 "Forestry Report, 1889-90," *Sessional Papers*, 12.
- 45 There is some indication in the literature that not all agriculturalists subscribed to this perceived crisis. In the correspondence section of the 1889-90 Forestry Report for example, two of fifty individuals maintained that there was no noticeable change in the climate in their region. Given the department's underlying agenda, it is quite possible that the opinions reflected in the literature were carefully selected so as to further substantiate the provincial government's principal intent.
- 46 David Gagan, *Hopeful Travellers: Families, Land, and Social Change in Mid-Victorian Peel County, Canada West* (Toronto: University of Toronto Press, 1981), 14.
- 47 *Ibid.*, 14.
- 48 Douglas McCalla, *Planting the Province: The Economic History of Upper Canada 1784-1870* (Toronto: University of Toronto Press, 1993), 10 and appendices.
- 49 *Ibid.*, 217.
- 50 *Ibid.*, 241.
- 51 Robert Leslie Jones, 246.
- 52 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 51.
- 53 *Ibid.*, 51.
- 54 *Ibid.*, 52.
- 55 Suzanne Zeller, 143-4.
- 56 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 52.
- 57 Richard S. Lambert, 183.
- 58 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 42.
- 59 *Ibid.*, 43.
- 60 For a breakdown of the townships which participated in the **Ontario Tree Planting Act**, and the funds paid to each locality, consult public account records under the heading "Forestry" located in the *Sessional Papers of Ontario*.
- 61 Kenneth Kelly, "Damaged and Efficient Landscapes in Rural and Southern Ontario 1880-1900," *Ontario History*, LXVI:1 (March 1974), 9.
- 62 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 44.
- 63 *Ibid.*, 45.
- 64 Kenneth Kelly, (March 1974), 10. After 1896 little is know about the workings of the Act.
- 65 *Records of the Municipal Council of the "Western District" "United Counties of Essex, Kent, and Lambton"* (Windsor: Windsor Review of Book & Job Office, 1890), years 1883-1887.

- 66 Charles Herniman, "Kent and Essex Counties," *Ontario Geographer* 8 (1974), 20.
- 67 For further information of the study of meteorology and climatology during the Victorian era in Canada, consult Suzanne Zeller's book *Inventing Canada*.
- 68 Kenneth Kelly, 64.
- 69 Richard S. Lambert, 2.
- 70 Kenneth Kelly, 64.
- 71 Suzanne Zeller, 3.
- 72 Kenneth Kelly, 65-6.
- 73 *Ibid.*, 64.
- 74 "Annual Report of the Director of Forestry, 1900-1901," *Sessional Papers*, (1902), 23. Although Southworth offers this very intriguing argument, he presents no supporting evidence for this particular supposition.
- 75 It is possible that some individuals did not subscribe to the argument that the province was experiencing a crisis in agriculture linked to deforestation and changing climatic patterns and cycles.
- 76 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 55.
- 77 "Forestry Report, 1896," *Sessional Papers*, 40 (1896), 55-6.
- 78 *Ibid.*, 55-6.
- 79 *Ibid.*, 56.
- 80 *Ibid.*, 25.
- 81 William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 170.